

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: WHITTON POND	Lake Area (ha):	57.71
Town: ALBANY	Maximum depth (m):	17.4
County: Carroll	Mean depth (m):	3.8
River Basin: Saco	Volume (m ³):	2215000
Latitude: 43°56'29" N	Relative depth:	2.0
Longitude: 71°11'53" W	Shore configuration:	2.15
Elevation (ft): 808	Areal water load (m/yr):	3.38
Shore length (m): 5800	Flushing rate (yr ⁻¹):	0.90
Watershed area (ha): 310.8	P retention coeff.:	0.73
% watershed ponded: 1.6	Lake type:	natural

BIOLOGICAL:

12 February 2002

1 August 2001

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 99%	DINOBRYON 75%
	#2		QUADRIGULA 10%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			0.92
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 29%	KERATELLA 49%
	#2	KELLCOTTIA 25%	NAUPLIUS LARVA 21%
	#3	NAUPLIUS LARVA 15%	CALANOID COPEPOD 15%
ROTIFERS/LITER		98	89
MICROCRUSTACEA/LITER		68	64
ZOOPLANKTON ABUNDANCE (#/L)		171	157
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			6.8
BOTTOM DISSOLVED OXYGEN (mg/L)		9.7	0.1
BACTERIA (E. coli, #/100 ml)	#1		4
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	6.0
Hypolimnion volume (m ³):	30700
Anoxic volume (m ³):	1200

CHEMICAL:

Lake: WHITTON POND

Town: ALBANY

	12 February 2002		1 August 2001		
DEPTH (m)	5.0	10.0	2.0	8.0	12.0
pH (units)	6.0	5.9	6.2	5.9	6.1
A.N.C. (Alkalinity)	1.1	1.0	1.0	1.2	0.9
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.20	0.10	0.10	0.20	0.10
TOTAL PHOSPHORUS	0.009	0.010	<0.005	0.006	<0.005
CONDUCTIVITY (μ mhos/cm)	17.7	18.1	16.6	16.3	16.6
APPARENT COLOR (cpu)	< 5	< 5	< 5	10	8
MAGNESIUM			< 0.10		
CALCIUM			< 1.0		
SODIUM			1.6		
POTASSIUM			< 0.40		
CHLORIDE	< 3	< 3	< 2		< 2
SULFATE	3	3	2		2
TN : TP	22	10			
CALCITE SATURATION INDEX					

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2001

D.O. S.D. PLANT CHL TOTAL CLASS

3	1	3	0	7	Meso.
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COMMENTS:

1. Previously surveyed in 1984.
2. Access road to the pond is difficult to find and very rough and, once at the pond, there is no boat launch site and little parking.
3. This is a relatively shallow pond overall with a small deep hole at the southern end and a moderately deep area in the northern end.
4. This is a moderately acidic, clear water pond with low phytoplankton production. Nutrients as well as conductivity and cations were also low. It was rated mesotrophic (one less point would rate it oligotrophic) primarily because of the growth of pickerelweed and water shield along much of the shoreline. The bottom dissolved oxygen was less in 2001 than in 1984 when the pond was rated oligotrophic.
5. The winter net phytoplankton was nearly uni-algal with the diatom *Asterionella*.
6. Only about 8 to 10 cottages on the pond.
7. Outstanding view of Mt. Chocorua from the pond.

Whitton Pond

Albany

10 foot depth contours



FIELD DATA SHEET

LAKE: WHITTON POND
DATE: 08/01/2001

TOWN: ALBANY
WEATHER: Sunny, warm & breezy

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SECCHI DISK (m):      6.8                COMMENTS:
BOTTOM DEPTH (m):     14.2
                        TIME:    1303

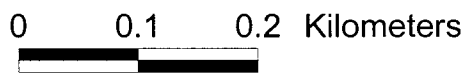
*Dissolved oxygen values are in mg/L
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